

**What is claimed is:**

1. A vehicle mounted oil recovery system, comprising:

a conduit to transport oil from an engine lubricating system of the vehicle;

5 a retort system, mounted upon the vehicle and operatively connected to said conduit to receive the transported oil, to distill, through vaporization, the transported oil into individual components.

10 2. The vehicle mounted oil recovery system as claimed in claim 1, further comprising a second conduit to transport the vaporized components to a fuel system of the vehicle for combustion thereof.

3. The vehicle mounted oil recovery system as claimed in claim 1, further comprising:

15 a second conduit to transport the vaporized components;

a temperature controlled separation chamber operatively connected to said second conduit to receive the transported vaporized components;

said temperature controlled separation chamber cooling oil vapor components so as to condense the oil vapor components into usable lubricating oil;

20 a third conduit, operatively connected to said temperature controlled separation chamber, to transport post condensing vaporized components remaining within said temperature controlled separation chamber to a fuel system of the vehicle for combustion thereof; and

25 a fourth conduit, operatively connected to said temperature controlled separation chamber, to transport the condensed oil vapor components to the engine lubricating system of the vehicle.

4. The vehicle mounted oil recovery system as claimed in claim 1, wherein said retort system is mounted directly upon an exhaust system of the vehicle, said retort

system capturing heat from the exhaust system of the vehicle to provide energy for the vaporization of the transported oil into individual components.

5           5. The vehicle mounted oil recovery system as claimed in claim 1, further comprising an active heating device operatively connected to said retort system so as to provide energy to said retort system for the vaporization of the transported oil into individual components.

10           6. The vehicle mounted oil recovery system as claimed in claim 1, further comprising:

          a cyclonic/centrifugal sludge remover to remove sludge and water from the oil of engine lubricating system of the vehicle; and

          a second conduit to transport the removed sludge and water to said retort system.

15           7. The vehicle mounted oil recovery system as claimed in claim 3, further comprising:

          a cyclonic/centrifugal sludge remover to remove sludge and water from the oil of engine lubricating system of the vehicle; and

          a fifth conduit to transport the removed sludge and water to said retort system.

20           8. The vehicle mounted oil recovery system as claimed in claim 3, wherein said retort system is mounted directly upon an exhaust system of the vehicle, said retort system capturing heat from the exhaust system of the vehicle to provide energy for the vaporization of the transported oil into individual components.

25           9. The vehicle mounted oil recovery system as claimed in claim 3, further comprising a control system to control a flow of oil to said retort system such that the vaporized components are only injected into the fuel system when the engine reaches a predetermined temperature.

10. The vehicle mounted oil recovery system as claimed in claim 3, further comprising a control system to control such that the vaporized components are only injected into the fuel system when the engine reaches a predetermined speed.

5 11. A method for recovering used oil using an exhaust system of a vehicle, comprising:

(a) transporting oil from an engine lubricating system of the vehicle into a retort system;

10 (b) extracting and conveying combustion heat from the exhaust system of the vehicle to the retort system; and

(c) distilling, through vaporization using the conveyed heat of combustion, the transported oil into individual components.

15 12. The method as claimed in claim 11, further comprising (d) transporting the vaporized components to a fuel system of the vehicle for combustion thereof.

13. The method as claimed in claim 11, further comprising:

(d) transporting the vaporized components to a temperature controlled separation chamber;

20 (e) cooling transported oil vapor components so as to condense the oil vapor components into usable lubricating oil;

(f) transporting post condensing vaporized components remaining within the temperature controlled separation chamber to a fuel system of the vehicle for combustion thereof; and

25 (g) transporting the condensed oil vapor components to the engine lubricating system of the vehicle.

30 14. The method as claimed in claim 11, further comprising (d) providing actively generated to the retort system so as to provide supplemental energy to the retort system for the vaporization of the transported oil into individual components.

15. The method as claimed in claim 11, further comprising:

(d) cyclonically/centrifugally removing sludge and water from the oil of engine lubricating system of the vehicle; and

5 (e) transporting the removed sludge and water to the retort system.

16. The method as claimed in claim 13, further comprising:

(h) cyclonically/centrifugally removing sludge and water from the oil of engine lubricating system of the vehicle; and

10 (i) transporting the removed sludge and water to the retort system.

17. The method as claimed in claim 13, further comprising (h) controlling a flow of oil to the retort system such that the vaporized components are only injected into a fuel system when the engine reaches a predetermined temperature.

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18. The method as claimed in claim 13, further comprising (h) controlling a flow of oil to the retort system such that the vaporized components are only injected into a fuel system when the engine reaches a predetermined speed.